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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,841	09/17/2003	Yoshisada Nakamura	Q77504	2704

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EXAMINER

NAKARANI, DHIRAJLAL S

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 04/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/663,841

Applicant(s)

NAKAMURA ET AL.

Examiner

D. S. Nakarani

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2003.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
4a) Of the above claim(s) 10-25 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-9 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 17 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/14/2003.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-9 are, drawn to an image receiving sheet, classified in class 428, subclass 483⁺.
 - II. Claims 10-13 are, drawn to an image receiving sheet, classified in class 428, subclass 500⁺.
 - III. Claims 14-17 are, drawn to a toner, classified in class 430, subclass 105⁺.
 - IV. Claims 18-25 are, drawn to a process for image formation, classified in class 399, subclass 68⁺.
2. The inventions are distinct, each from the other because:

Inventions I, II, III and IV are independent and distinct from each other because the invention I requires base, polyethylene layer/thermoplastic such as water dispersible polyester toner receiving layer. While the invention II requires support/polyethylene toner receiving layer. The invention III is directed to a toner composition and the invention IV is directed a process for image formation requiring image receiving sheet comprising polyethylene base/polyethylene resin layer/toner image receiving layer.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Mr. Brett Sylvester on February 09, 2005 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-9. Affirmation of this election must be made by applicant in replying to this Office action. Claims 10-25 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino et al (US Patent Application Publication 2002/0037176 A1) in view of Aylward et al (U.S. Patent 6,080,534), Takehana et al (U. S. Patent 5,885,698) and Ikeuchi et al (6,444,383).

Ogino et al disclose an electrophotographic transfer sheet comprising paper support (40) coated both side of the paper support (40) polyethylene coating layers (41) and an image receiving layer 43 formed of a thermoplastic polyester resin (Paragraph 0050). The thermoplastic polyester resin has glass transition temperature 30°C or less, weight average molecular weight of 15,400 and number average molecular weight of 6,600 thus $M_w/M_n = 2.33$ (Paragraph 0122). The polyester resin is an aqueous dispersion (paragraph 0101). Ogino et al fail to disclose density of polyethylene resin and claimed glass transition temperature of polyester resin.

Aylward et al disclose an imaging element having at least two polymer layers on the side bearing an imaging layer (Abstract). The layer close to imaging layer is made of low density polyethylene having density of 0.9 g/cc Aylward et al do not disclose a blend of two polyethylenes.

Takehana et al disclose an electrophotographic image receiving film having image receiving layer made of water dispersible polyester having glass transition temperature 35°C or higher (col. 5, lines 18-24), a number average molecular weight of from 1500 to 5000 and M_w/M_n of from 1.2 to 3.0 (col. 6, lines 25-30).

Ikeuchi et al disclose an image receiving sheet having polyester image receiving layer. The polyester has number average molecular weight ranging from 1500 to 7000.

Art Unit: 1773

Ikeuchi et al disclose that when number average molecular weight is low, the resin is too soft and has excessive blocking and when the molecular weight is high, the resin is too hard and decreases compatibility with toner (col. 7, lines 11-55). Ikeuchi et al's polyester resin has glass transition temperature 53⁰ C or higher (Examples).

Therefore it would have been obvious to a person of ordinary skill in the art at the time of this invention made to utilize of disclosures of Aylward et al, Takehana et al and Ikeuchi et al in the invention of Ogino et al to use Aylward et al's polyethylene and polyester of either Takehana et al or Ikeuchi et al for image receiving layer depending on toner compability and desired cohesive energy for toner. Mixing two or more polyethylenes to adjust desired density would have been obvious to a person of ordinary skill in the art.

No claims are allowed.

9. Receipt of Information Disclosure Statement filed November 14, 2003 is acknowledged and has been made of record.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. S. Nakarani whose telephone number is (571) 272-1512. The examiner can normally be reached on Tuesday-Friday from 7:00 am to 5:30 pm.

Art Unit: 1773

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D. S. Nakarani/af
April 20, 2005


D. S. NAKARANI
PRIMARY EXAMINER